REMARKS/ARGUMENTS

Favorable consideration of this application is respectfully requested.

Claims 1-4 and 8-15 are presently active in this application. Claims 8-15 have been withdrawn from consideration.

The outstanding Action presents a rejection of Claims 1 and 2 as being unpatentable over Okubo (U.S. Patent No. 6,529,011) under 35 U.S.C. §103(a) and a rejection of Claims 1-4 as being unpatentable over Okubo under 35 U.S.C. §103(a). These rejections differ slightly with respect to Claims 1 and 2 based upon slight differences in the portions of Okubo being relied upon.

As noted in the previous response, the stopping of the voltage being applied across the at least one probe and the inspection electrode when a current flowing between the at least one probe and the inspection electrode reaches a reference value is advantageous in several respects. For example, it helps protect the tip portion of the at least one probe, the target object, and the contact portion formed by the at least one probe tip portion and the electrode of the target object from being damaged due to excessive current flow damage that can occur from a current surge when the insulating film is broken. The fritting process time can further be reduced as there is a positive stopping of the fritting voltage due to the presence of a current flow indicating the breaking of the insulating film which permits the changeover to inspection at the earliest possible time. The last response amended base Claim 1 to recite that this reference value for current is set between 500mA and 1A.

The rejection of Claims 1 and 2 as being unpatentable over Okubo and the rejection of Claims 1-4 as being unpatentable over Okubo rely in part on the same disclosure of Okubo at col. 4, line 1-4. In addition, page 3, lines 3-6, of the

outstanding Action add col. 3, lines 64-67. In both cases (page 3, lines 3-6, and page 4, lines 14-16, of the outstanding Action) assert that Okubo discloses "stopping a voltage [using 6 or 7] from being applied across the at least one probe and the inspection electrode when a current flowing between the at least one probe and the inspection electrode reaches a reference value." However, Okubo does not tech or suggest any such "stopping" based on "a current flowing between the at least one probe and the inspection electrode" reaching "a reference value."

Instead, the teachings at col. 3, lines 64-67 and col. 4, lines1-4 simply indicate that an electric signal (voltage at a level per unit thickness of the insulation layer ranging from 20 to 10000 V/μm, as specifically disclosed at col. 4, lines 2-4) is applied to break down an insulation layer of an oxide or organic material. No "stopping" of this signal-voltage application is taught here, or elsewhere in Okubo, to be the result of any current flow, much less the claimed current flow condition "between the at least one probe and the inspection electrode" reaching "a reference value."

The only current flow discussed is that of a measurement signal, like the discussion at col. 4, lines 5-13, in which the characteristic (insulation resistance) of the device under test (D.U.T.1) is measured based on signals flowing through this device under test (D.U.T.1).

Clearly, the value "20 to 10000 V/μm" as discussed above as to col. 4, line 4, of Okubo is the voltage applied to bring about a fritting phenomenon, and is not the claimed "reference value" of the recital "when a current flowing between the at least one probe and the inspection electrode reaches a reference value."

The "measuring" noted above as to col. 4, lines 5-13, discussed above is a test of the characteristic (insulation resistance) of the device under test (D.U.T.), and is

not for measuring "when a current flowing between the at least one probe and the inspection electrode reaches a reference value."

On the other hand, Okubo (at col. 5, line 64 –col. 6, line 6) has the following description related to the recited "stopping" in Claim 1.

> When the phototransistors 11b and 12b are conductive (with both inputs of NOR gate 13 at a low level), the NOR gate 13 output a contact sense signal. Specifically, when a current follow through the insulation breaking circuit (insulation breaking takes place), the phototransistors 11b and 12b become conductive, driving the two inputs of the NOR gate 13 low. From the output of the NOR gate 13, the apparatus senses the contact between the measuring terminals 4a, 4b, 5a and 5b and the external electrodes 2 and 3."

This teaching explains that "when a current flows through the insulation breaking circuit (insulation breaking takes place), the NOR gate 13 outputs a contact sense signal."

A shown in Fig. 5, at time t2, when "the contact sense signal" is output from the NOR, an electrical signal is applied to the measuring instrument, and measurement of the characteristic of the device under test is initiated. Here, "the contact sense signal" is output from the NOR circuit when "insulation breaking takes place."

The step utilizing the fritting phenomenon to electrically contact the device under test and the measuring probe can be divided into the following two steps:

First step: A step utilizing the fritting phenomenon to break the insulation film formed on the surface of the device under test, and forming an electrical circuit.

Second step: A step for further expanding the electric circuit formed by contacting the electrode and the probe.

The description "when a current flows through the insulation breaking circuit (insulation breaking takes place), the NOR gate 13 outputs a contact sense signal" of Okubo corresponds to the "first step" described above.

The present invention ensures a stable electrical contact of no more than 1Ω between the probe and the electrode by performing the "second step" after the "first step." This insuring of such a stable electrical contact is what is obtained by the claimed "stopping a voltage from being applied across the at least one probe and the inspection electrode when a current flowing between the at least one probe and the inspection electrode reaches a reference value of 500mA-1A."

Okubo clearly does not seek to ensure such a stable electrical contact and is only concerned with the "first step" noted above. Thus, the outstanding Action makes unfounded assumptions in support of both of these rejections asserting that Okubo teaches the Claim 1 required "stopping a voltage from being applied across the at least one probe and the inspection electrode when a current flowing between the at least one probe and the inspection electrode reaches a reference value."
In this last respect, such expansions of reference teachings using unfounded assumptions and/or speculation cannot be substituted for actual reference teachings that have not been presented by the reference itself. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967) ("The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.").

This is not the only improper assumption being made. As acknowledged in the outstanding Action, Okubo "is silent about **a reference value of 500mA-1A**" (emphasis in original). Each of these rejections then note that Okubo teaches (at col. 2, lines 35-44) that "the level of the electrical signal capable of breaking the insulation depends on the composition and thickness of the insulation layer, but, generally speaking, the application of voltage within a range of 20-10000 V/μm is sufficient to

cause insulation break down." The outstanding Action then asserts that Okubo teaches the "claimed range of current (by ohm's law), since application of voltage as disclosed by Okubo includes application of current."

However, there is voltage and no current flow prior to the breakdown. Also, Ohms law relates current and voltage with resistance as follows, I=VR. Thus, merely knowing voltage does not teach the current flow without knowing the resistance. Once again, improper assumptions and speculation have been used to augment the limited reference teachings.

Accordingly, as Okubo fails to teach or suggest all of the limitations of Claim 1,it is clear that the present anticipation rejections applied as to Claim 1 cannot be maintained and should be withdrawn.

As Claims 2-4 all ultimately depend from Claim1 and include all the limitations thereof, the subject matter of these dependent claims also cannot be said to be reasonably taught or suggested by Okubo.

Accordingly, the withdrawal of the rejection of Claim 2 and the rejection Claims 2-4 as being anticipated by Okubo is also respectfully submitted to be in order.

As no further issues are believed outstanding in the present application, it is believed to be clearly in condition for formal allowance. Accordingly, an early and favorable action to that effect is therefore earnestly and respectfully requested.

Respectfully submitted,

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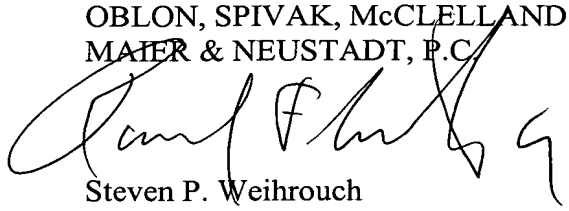

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